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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,888	11/16/2000	Tammy S. Dore	NORT-0075 (12744RRUS01U)	9420
21906	7590	04/14/2004	EXAMINER	
TROP PRUNER & HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2667	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/713,888

Applicant(s)

DORE ET AL.

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 03/17/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20, 28-29 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites "prior to a call session being established in response to the call request, receive a request to collect digits from the media gateway controller over the packet-base network"; whereas claim 28 recites "the controller is further adapted to receive a request to collect digits after establishing a call session". Claim 28 depends on claim 20; therefore, it is confusing because claim 20 conflicts with claim 28. Similarly, claim 29 conflicts with claim 36.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 5, 29, 32-34, 39, 43 and 45 are rejected under 35 U.S.C. 102(a) as being unpatentable over Culpepper et al, published at
<http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt>.

Regarding claims 1, 29, 32-34, 43 and 45, Culpepper discloses Session initiation Protocol (SIP) INFO method for communicating mid-call events in SIP sessions; see figure on page 2. Culpepper discloses that the method comprises the steps of:

a media gateway controller (MGC) at a receiving side receives a call request from another MGC at a transmitting side (receiving a call request, from a first media gateway controller (MGC) to a second media controller (MGC) over a network);

a SIP entity can request that the MGC enable detection of MG supported events and that the MGC pass on event notification from the MGC to the requesting SIP entity. The use of a Digit Map in the event request addresses DTMF accumulation and order of delivery issues; page 3, second paragraph and page 4, section 4. Furthermore, page 6 (section 6), Culpepper teaches an example for collecting 4 requested digits PIN number for establishing a call connection (requesting information from the first media gateway controller and receiving the information before establishing a bearer path over the network.)

Regarding claims 2 and 5, Culpepper discloses on page 7, second paragraph that the use of a Package designator in the event request also helps reduce any ambiguity in which media source event detection and reporting is desired for. Therefore, it implies that the system adapts with a packet-based network (receiving the call comprises receiving the call over a packet-based network.)

Regarding claim 39, Culpepper discloses that the system uses SIP INFO method for communicating mid-call events in SIP sessions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12, 18-21, 24-25, 28, 35-36 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Choudhuri et al published at <http://www.alternic.org/drafts/drafts-c-d/draft-choudhuri-sip-info-digit-00.html>, hereafter referred to as Culpepper and Choudhuri respectively.

Regarding claims 9-11, 18-19, 28, 35-36, Culpepper discloses that the SIP INFO Method, for transporting DTMF digits between two SIP entities and for specifying digit collection to be performed by a SIP client is described in Choudhuri paper, which discloses a SIP INFO method for DTMF digit transport and collection; page 3, second paragraph. This method provides a SIP entity with significant control over digit collection and detail concerning the results of the collection. Furthermore, Choudhuri teaches that Using Session Initiation Protocol applications can establish and terminate multimedia sessions. Telephony applications that require mid session signaling can accomplish that task by using SIP INFO method; section 1.0. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply collection method disclosed by Choudhuri into Culpepper's system in order to control a call between a calling party and a called party by using DTMF signal.

Regarding claims 12 and 20, the system disclosed by Culpepper comprises a Media gateway connected with PSTN network; therefore, it inherently comprises an interface in order to connect to a packet-based network (a first interface coupled to a first network). In addition, Culpepper discloses that a Media gateway Controller (MGC) coupled to the media gateway for communicating with the PSTN system (a controller communicatively coupled to the first interface). The media gateway controller (MGC) at a receiving side in the system disclosed by Culpepper receives a call request from another MGC at a transmitting side before establishing a call session (receive a call request from a media gateway controller over the packet based network). Page 6 (section 6), Culpepper teaches an example for collecting 4 requested digits PIN number for establishing a call connection. Furthermore, Culpepper discloses that the SIP INFO Method, for transporting DTMF digits between two SIP entities and for specifying digit collection to be performed by a SIP client is described in Choudhuri paper, which discloses a SIP INFO method for DTMF digits transport and collection; page 3. This method provides a SIP entity with significant control over digit collection and detail concerning the results of the collection. Furthermore, Choudhuri teaches that Using Session Initiation Protocol applications can establish and terminate multimedia sessions. Telephony applications that require mid session signaling can accomplish that task by using SIP INFO method; section 1.0. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply collection method disclosed by Choudhuri into Culpepper's system in order to control a call between a calling party and a called party over Data network by using DTMF signal.

Regarding claim 21, Culpepper discloses that the SIP BCP-T addresses inter MGC (also known as a Softswitch) communication using SIP and describes the use of the SIP INFO method for carrying mid-session signaling messages. In addition, mid-call events, including DTMF signaling, that are detectable by a gateway. Furthermore, Culpepper describes the use of the SIP INFO method, for requesting and reporting events along the SIP signaling path abstract, introduction, page 2 section 2. Therefore, it implies that the first network is a Signaling System network.

Regarding claim 24, Culpepper discloses on page 7, second paragraph that the use of a Package designator in the event request also helps reduce any ambiguity in which media source event detection and reporting is desired for. Therefore, it implies that the system adapts with a packet-based network (receiving the call comprises receiving the call over a packet-based network.)

Regarding claim 25, Culpepper discloses in figure on page 2 that a Media gateway controller collects the digits from the media gateway over MGCP, a media gateway controller protocol, a simple gateway controller protocol, and an Internet protocol device control; see section 1 and 2, pages 1-3.

Regarding claim 40, the reference teaches that one set of events that is required for enhanced services present in the PSTN is the start of DTMF tone and either the end of the DTMF tone or the duration of the DTMF tone, page 2, second paragraph. In addition, the reference uses a signaling gateway located in the media gateway to collect DTMF digits in order to setup a call before establishing a connection between two end users through a packet network, page 2, section 2.

Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Choudhuri et al published at <http://www.alternic.org/drafts/drafts-c-d/draft-choudhuri-sip-info-digit-00.html>, and further in view of Media Gateway Control Protocol (MGCP) version 1.0., hereafter referred to as Culpepper, Choudhuri and MGCP respectively.

Regarding claims 13 and 23, Culpepper does not explicitly disclose that the call is received over an ATM Network. However, the MGCP states protocol for adapting the MGC to an ATM network. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply MGCP to MGC for economic reason because it adapts with conventional ATM communication systems used in the network.

Claims 3 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Media Gateway Control Protocol (MGCP) version 1.0, hereafter referred to as Culpepper and MGCP respectively.

Regarding claims 3 and 30, Culpepper does not explicitly disclose that the call is received over an ATM Network. However, the MGCP states protocol for adapting the MGC to an ATM network. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply MGCP to MGC for economic reason because it adapts with conventional ATM communication systems used in the network.

Claims 4, 6-8, 14-17, 22 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at

<http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Choudhuri et al published at <http://www.alternic.org/drafts/drafts-c-d/draft-choudhuri-sip-info-digit-00.html>, Media Gateway Control Protocol (MGCP) version 1.0, and further in view of Bearer Independent Call Protocol (BICP) ITU Recommendation Q.1901.

Regarding claims 4, 6-8, 14, 16-17, 22 and 26-27 Culpepper discloses that the system is adapted to receive the call request in SIP-T message, see figure on page 2. Culpepper does not disclose the call request comprises a BICC IAM message. However, the BICP of ITU Recommendation Q.1901 teaches this feature. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply MGCP to MGC for the same purpose as recited in claim 3.

Regarding claim 15, Culpepper discloses on pages 2 and 7, second paragraph that the use of a Package designator in the event request also helps reduce any ambiguity in which media source event detection and reporting is desired for. Therefore, it implies that the system adapts with a packet-based network for requesting digits from the media gateway (the controller is further adapted to request the at least one digit from the media gateway controller over the packet-based network.)

Claims 31, 37 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Bearer Independent Call Protocol (BICP) ITU Recommendation Q.1901, hereafter referred to as Culpepper and BICP respectively.

Regarding claim 31 Culpepper discloses that the system is adapted to receive the call request in SIP-T message, see figure on page 2. Culpepper does not disclose the call request comprises a BICC IAM message. However, the BICP of ITU Recommendation Q.1901 teaches this feature. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply MGCP to MGC for the same purpose as recited in claim 3.

Regarding claim 37, Culpepper discloses that the media gateway controller (MGC) at a receiving side in the system disclosed by Culpepper receives a call request from another MGC at a transmitting side (receive a call request from a media gateway controller over the packet based network). Culpepper discloses that the system receives SIP-T message from the MGC before establishing a voice path over a packet based network. Furthermore, page 6 (section 6), Culpepper teaches an example for collecting 4 requested digits PIN number for establishing a call connection. Culpepper does not disclose that the system receives BICC message from the MGC. However, the BICP of ITU Recommendation Q.1901 teaches this feature. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply MGCP to MGC for the same purpose as recited in claim 3.

Regarding claim 44, Culpepper teaches one of the uses for the SIP INFO is carrying DTMF digits generated during a session. DTMF digits are transported in a Q.931 Keypad facility information element as user-to-user data in an ISUP USR message; abstract and section 1. Furthermore, page 6 (section 6), Culpepper teaches

an example for collecting 4 requested digits PIN number for establishing a call connection.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt> in view of Steve Donovan "The SIP INFO method" published at <http://www.cs.columbia.edu/sip/drafts/sip/draft-ietf-sip-info-method-00.txt>, hereafter referred to as Culpepper and Donovan.

Regarding claim 38, Culpepper teaches that one of the uses for the SIP INFO is carrying DTMF digits generated during a session. DTMF digits are transported in a Q.931 Keypad facility information element as user-to-user data in an ISUP USR message; abstract and section 1. Culpepper does not clearly teach that the ISUP is an IAM message, and the step of requesting and receiving the information in the system disclosed by Culpepper occurs before sending an OK message in response to an invite message. However, Donovan discloses these features on page 4-6, sections 2.2 and 3.3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Donovan method into Culpepper's system in order to improve setup a connection between end users by using SIP protocol.

Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culpepper et al published at <http://www1.cs.columbia.edu/sip/drafts/draft-culpepper-sip-info-event-00.txt>, in view of Choudhuri et al published at <http://www.alternic.org/drafts/drafts-c-d/draft-choudhuri-sip-info-digit-00.html>, and further in view of Steve Donovan "The SIP INFO method" published at

<http://www.cs.columbia.edu/sip/drafts/sip/draft-ietf-sip-info-method-00.txt>, hereafter referred to as Culpepper, Choudhuri and Donovan.

Regarding claims 41-42, Culpepper teaches that one of the uses for the SIP INFO is carrying DTMF digits generated during a session. DTMF digits are transported in a Q.931 Keypad facility information element as user-to-user data in an ISUP USR message; abstract and section 1. Culpepper does not clearly teach that the ISUP is an IAM message, and the step of requesting and receiving the information in the system disclosed by Culpepper occurs before sending an OK message in response to an invite message. However, Donovan discloses these features on page 4-6, sections 2.2 and 3.3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Donovan method into Culpepper's system in order to improve a call connection over data network between end users by using SIP protocol.

Response to Arguments

Applicant's arguments filed on 03/17/2004 have been fully considered but they are not persuasive.

Regarding claims 1, 29 and 39 (p. 10-12), claim 26 (p. 14), Applicants argue that the reference does not teach the step of "receiving the information before establishing a bearer path over the network" because the method disclosed in the reference adapts with mid-call events. Examiner respectfully disagrees because of the following reasons:

First, it depends on how considered starting time of a call is. If the starting time of the call is defined when a system receives an off-hook signal from a calling party, both the reference and the present application teach the mid-call events. According to the

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specification of the application, on page 6, lines 10-26, the system collects information such as DTMF digits, including PIN numbers, extension numbers, credit card numbers, passwords and the like after the user has dialed the destination number without first establishing a bearer path connection. Similarly, the reference teaches that one set of events that is required for enhanced services present in the PSTN is the start of DTMF tone and either the end of the DTMF tone or the duration of the DTMF tone, page 2, second paragraph. Therefore, both the reference and the present application teach the mid-call events. However, if starting of a call is defined when a connection between two end users is established through the data network (i.e. the call is completely connected through the data network), all of the signaling in both reference and present application are transmitted before establishing a connection path through the data network (see second reason below). Thus, the statement "mid-call" or "mid-session" does not mean that the DTMF are received after establishing the bearer path as recited in the remarks.

Second, one of ordinary skill in the art must understand that in the voice over IP system, all of the signaling between two end users is transmitted over a signaling system before establishing a connection path through data packet network. The reference discloses the system comprises a signaling gateway for collecting DTMF digits by using SIP protocol in order to setup a call before establishing a connection between two end users through the packet network, page 2, sections 1-2. The reference, therefore, clearly teaches the limitation "receiving the information before establishing a bearer path over the network" as recited in claims 1 and 29.

Regarding claims 11-12 (p. 11-13), 15 and 18 (p. 13), 20, 37 and 44 (p. 14), Applicants argue that the references do not teach or suggest requesting information in response to determining that additional digits are desired to establish the call. Examiner respectfully disagrees. Page 6 (section 6), Culpepper clearly teaches an example for collecting 4 requested digits PIN number.

Applicants' arguments with respect to claims 38 (p. 11-12), 41-42 (p. 13-14) have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 4/13/07